

## REFERENCES CONSULTED

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## EMENDATIONS IN UNITED STATES PHYSALIS

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An investigation of *Physalis* in Mexico, Central America and the West Indies, undertaken during the past four years, including a trip in August, 1965 to study types and other historically significant specimens in European herbaria, has resulted in the necessity of reinterpreting some of the taxa of this genus in the U.S. In addition, further observation indicates the desirability of a change in status for another taxon.

***Physalis hederifolia*** Gray, var. ***puberula*** Gray was included in var. *hederifolia* in the earlier treatment (Waterfall, 1958). In studying Mexican material it seemed that collections with vestiture of short, antrorse hairs only, or with varying amounts of glandular-capitate trichomes, might well be referred to var. *puberula*, those with vestiture including long, jointed hairs to var. *hederifolia* (Waterfall, 1967). The two may be intermixed in much of their range, but var. *puberula* is more western.

Examples of var. *puberula* include: CALIFORNIA: SAN DIEGO CO.: "Cleveland collection" 6993, between Walkers and Jacumba, June 23, 1885 (SD); Daniel Cleveland 6931, July 3, 1884 (SD); ARIZONA: COCHISE CO.: Wyatt W. Jones *sin num*, Don Luis, Aug. 18, 1956 (SD); YAVAPAI CO.: Charles W. Harbison 41.220, Kirkland Junction, May 29, 1941 (SD).

***Physalis philadelphica*** Lamarck, var. ***immaculata*** Waterfall, *Rhodora* 69: 215. 1967. This small-flowered variety

with essentially immaculate corollas was described from Chihuahua, Jalisco, Guanajuato and Sonora.

Specimens at hand from the United States are: ARIZONA: COCHISE CO.: *Booth & Jones sin num*, Don Luis, Aug. 26, 1955 (SD); *Wyatt Jones sin num*, McNeal, Sept. 6, 1962 (SD).

**Physalis cordata** Miller includes the material with large, glabrous, acuminate-toothed fruiting calyces originally referred by the author (1958) to *P. pubescens* var. *glabra* which proves to be only an extreme of *P. pubescens* var. *pubescens* (Waterfall, 1967).

Representative collections at hand are: ARKANSAS: HOT SPRINGS CO.: *Demaree 30279*, foothills, Magnet Cove, Butterfield, Oct. 28, 1950 (OKLA); CALIFORNIA: SAN DIEGO CO.: *Gardner 9820*, Lakeside, Sept. 26, 1945 (SD); FLORIDA: POLK CO.: *J. Cecil King sin num*, Lake Wales, Sept. 3, 1958 (OKLA); LOUISIANA: ASCENSION PARISH: *Anna Ashby 36*, very frequent in cane field, 4 miles from Donaldsonville, Nov. 23, 1956 (OKLA); LA FOURCHE PARISH: *Joseph Ewan 18877 pro parte*, S. P. RR. Station, Raceland Junction, Oct. 20, 1956 (OKLA).

**Physalis turbinata** Medicus has longer, narrower calyx lobes, and larger fruiting calyces than *P. pubescens sens. str.* to which it is closely related (Waterfall, 1958). Much of the material labelled *P. turbinata* in American herbaria is *P. cordata* Miller, a glabrous, or near-glabrous species with long fruiting pedicels, quite different from the hairy species specified by Medicus.

Representative collections at hand are: FLORIDA: POLK CO.: *McFarlin 5924*, Bartow, June 23, 1931 (CAS); TEXAS: ANGELINA CO.: *Hamby 1582*, 3 mi w of Diboll, Aug. 9, 1940 (US); BOWIE CO.: *Correll 31272*, hardwood hills, among grasses in open woods, about 2 miles north of Texarkana, July 12, 1965 (LL); CAMERON CO.: *Correll 14856*, La Palmas Plantation, about 4 miles southwest of Brownsville, in palm grove, Oct. 4, 1952 (LL); HARRIS CO.: *Correll 31889*, in rich woods of meadow along stream near Addicks, Oct. 6, 1965 (LL); HIDALGO CO.: *Fleetwood 3112*, Santa Ana National Wildlife Refuge south of Alamo, Sept., 1959 (TEX); WILLACY CO.: *Johnston 542221*, sparse mesquite brush over sacahuiste, 9 miles west of Redfish Bay, Nov. 28, 1954 (LL).

**Physalis pubescens** L., var. **missouriensis** (Mackenzie & Bush) Waterfall, comb. et stat. nov., *P. missouriensis* Mackenzie & Bush, Trans. Acad. Sci. St. Louis 12: 84-85. 1902.

This taxon seems easily differentiated from *P. pubescens* var. *pubescens* by its immaculate corolla and smaller anthers. Nevertheless, the relationship seems close enough that it might be better to consider it a variety of that species.

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